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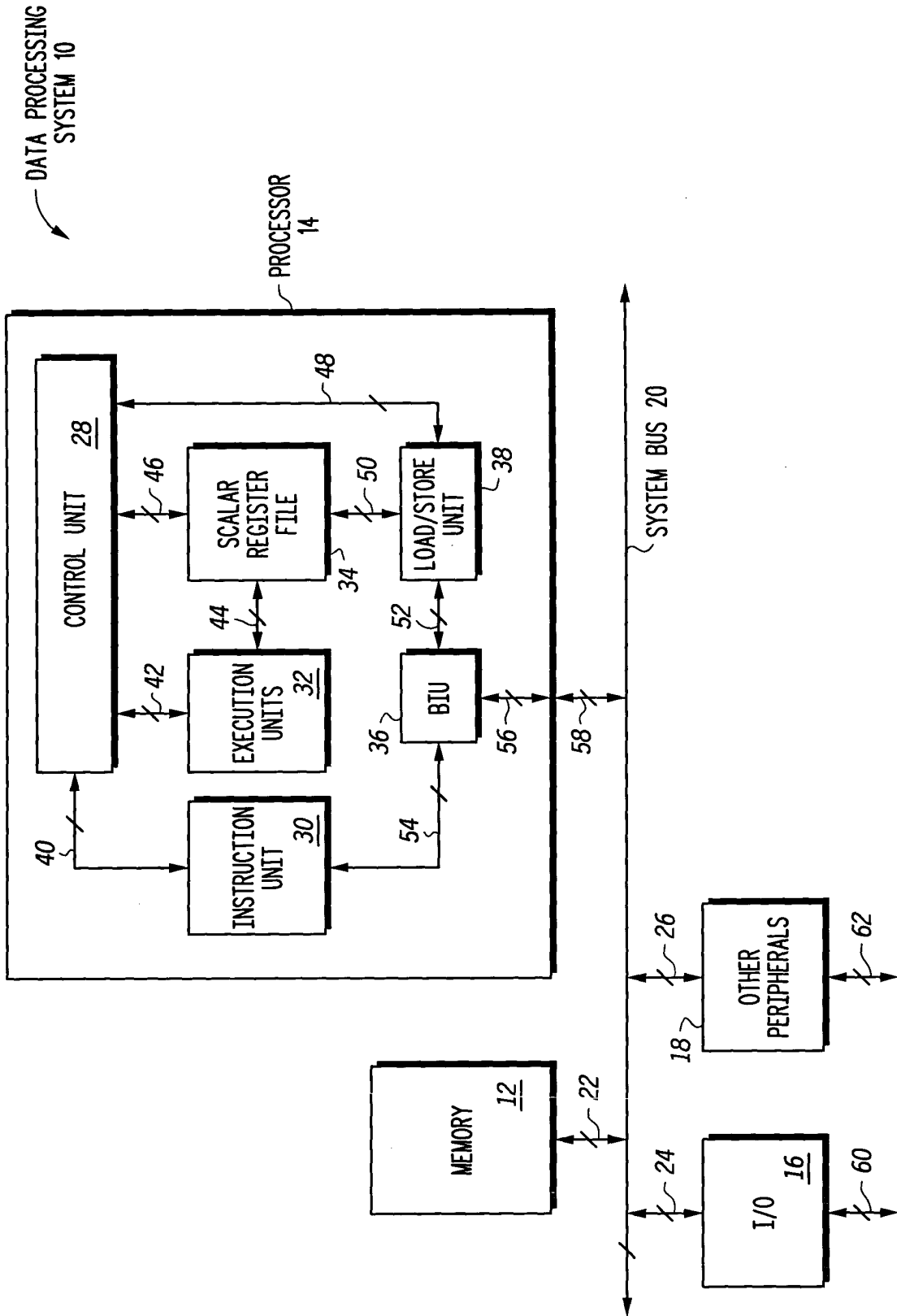
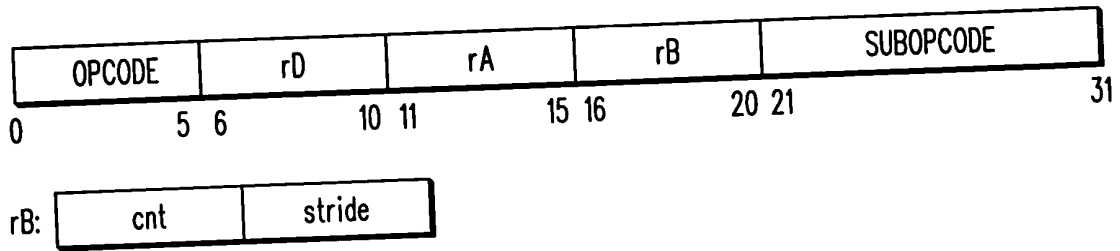


FIG. 1

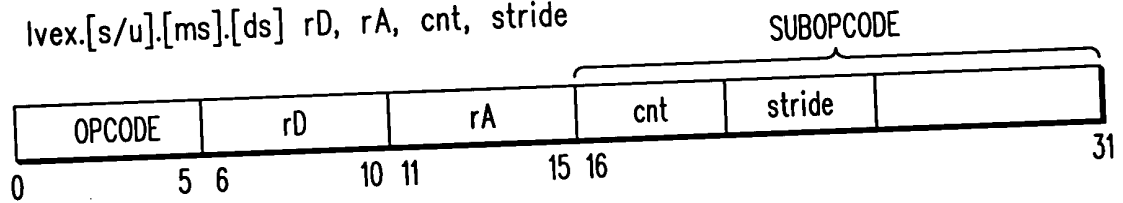
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lvex.[s/u].[ms].[ds] rD, rA, rB



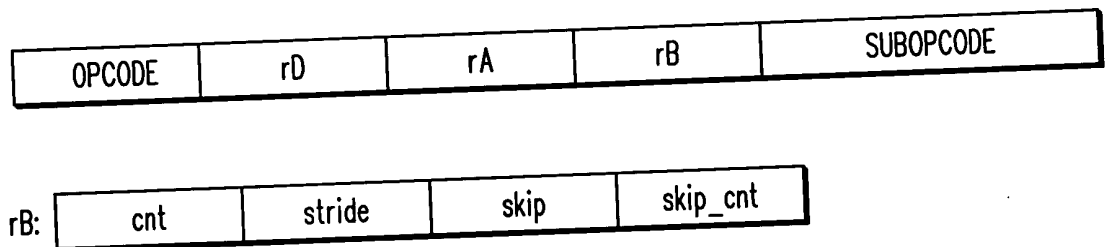
**FIG. 2**

lvex.[s/u].[ms].[ds] rD, rA, cnt, stride



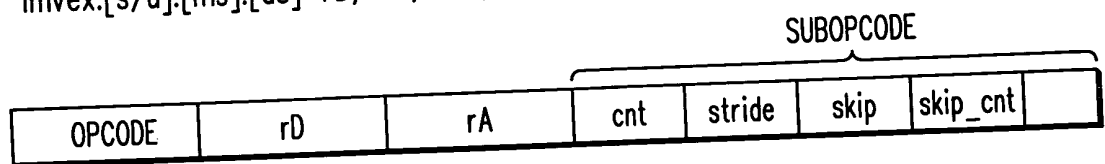
**FIG. 3**

lmvex.[s/u].[ms].[ds] rD, rA, rB



**FIG. 4**

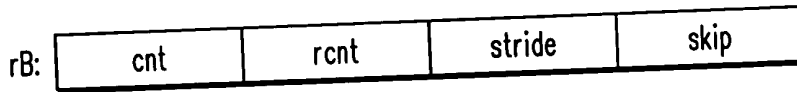
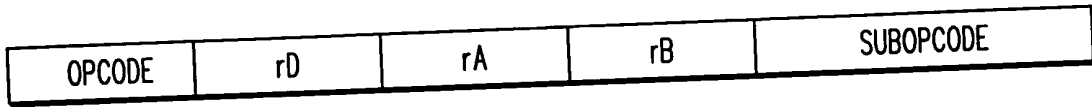
lmvex.[s/u].[ms].[ds] rD, rA, cnt, stride, skip, skip\_cnt



**FIG. 5**

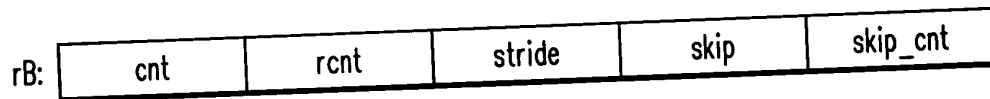
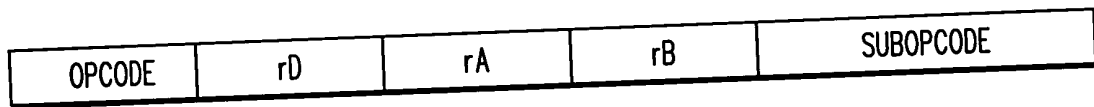
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lmvex2.[s/u].[ms].[ds] rD, rA, rB



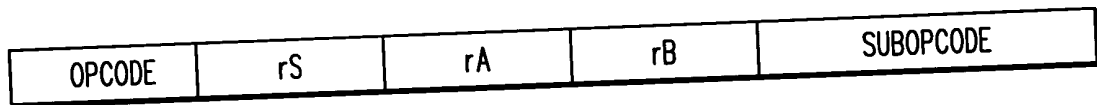
**FIG. 6**

lstrmvex.[s/u].[ms].[ds] rD, rA, rB



**FIG. 7**

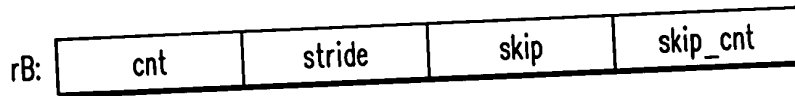
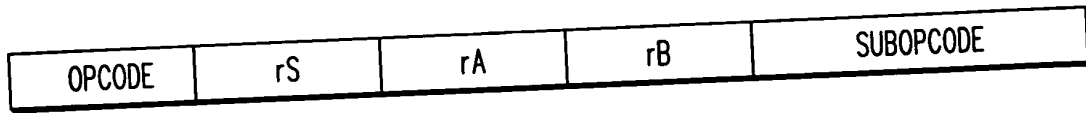
stvex.[s/u].[ms].[ss].[h/l] rS, rA, rB



**FIG. 8**

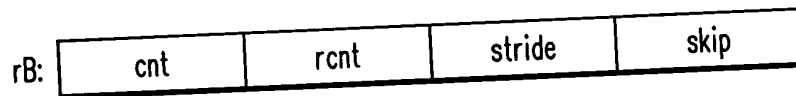
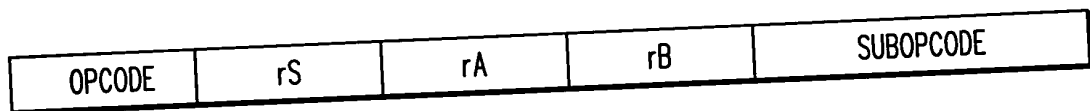
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stmvex.[s/u].[ms].[ss].[h/l] rS, rA, rB



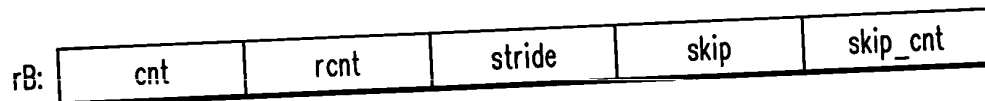
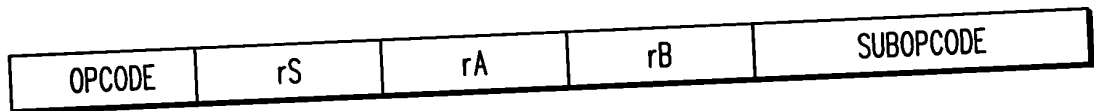
**FIG. 9**

stmvex2.[s/u].[ms].[ss].[h/l] rS, rA, rB



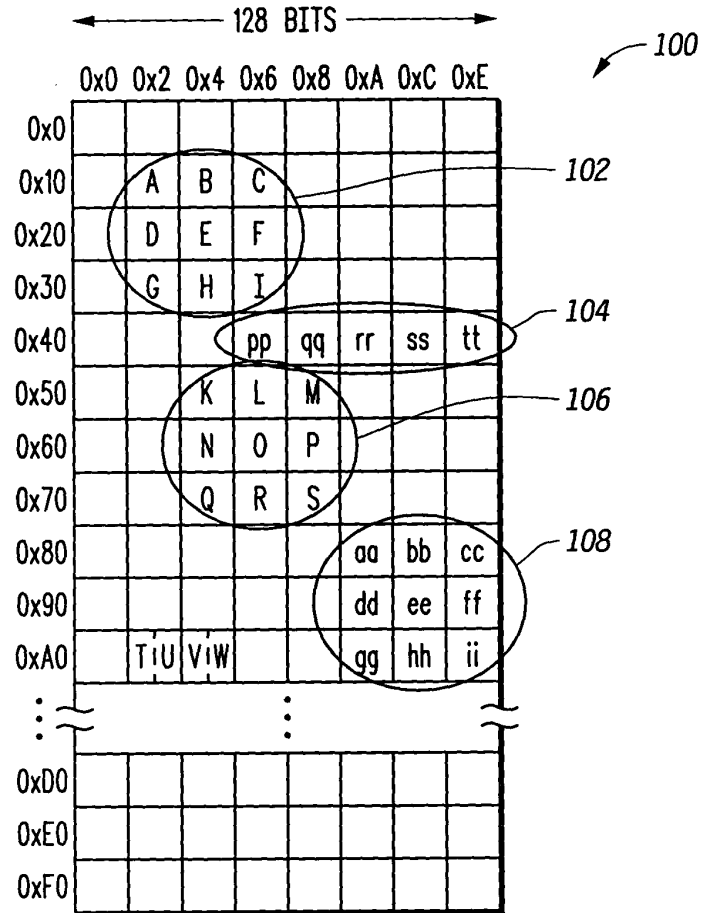
**FIG. 10**

ststmvex.[s/u].[ms].[ss].[h/l] rS, rA, rB

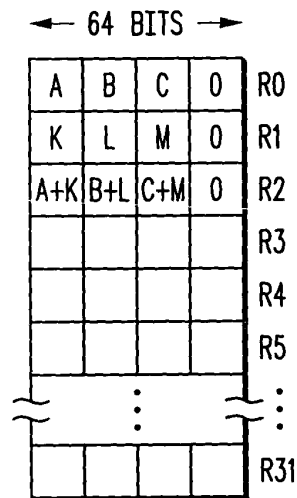


**FIG. 11**

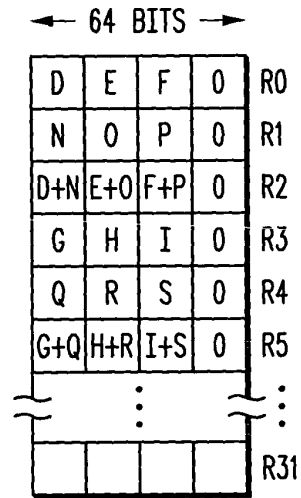
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**FIG. 12**

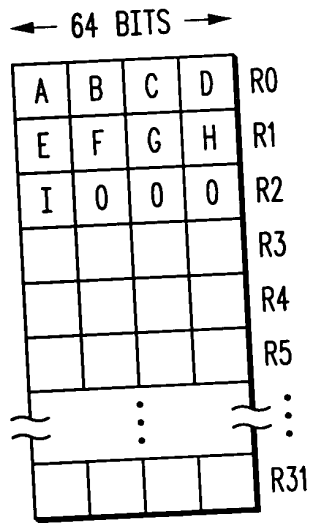


**FIG. 13**

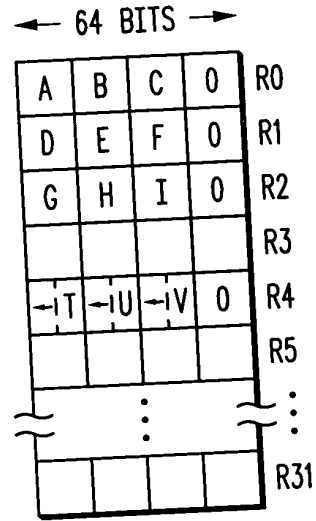


**FIG. 14**

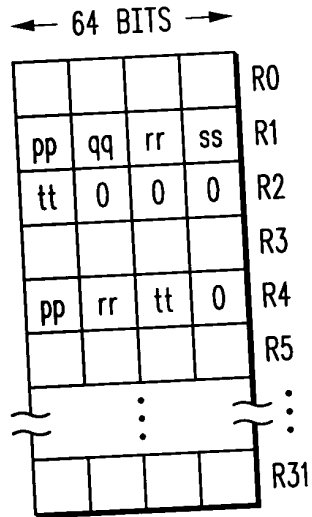
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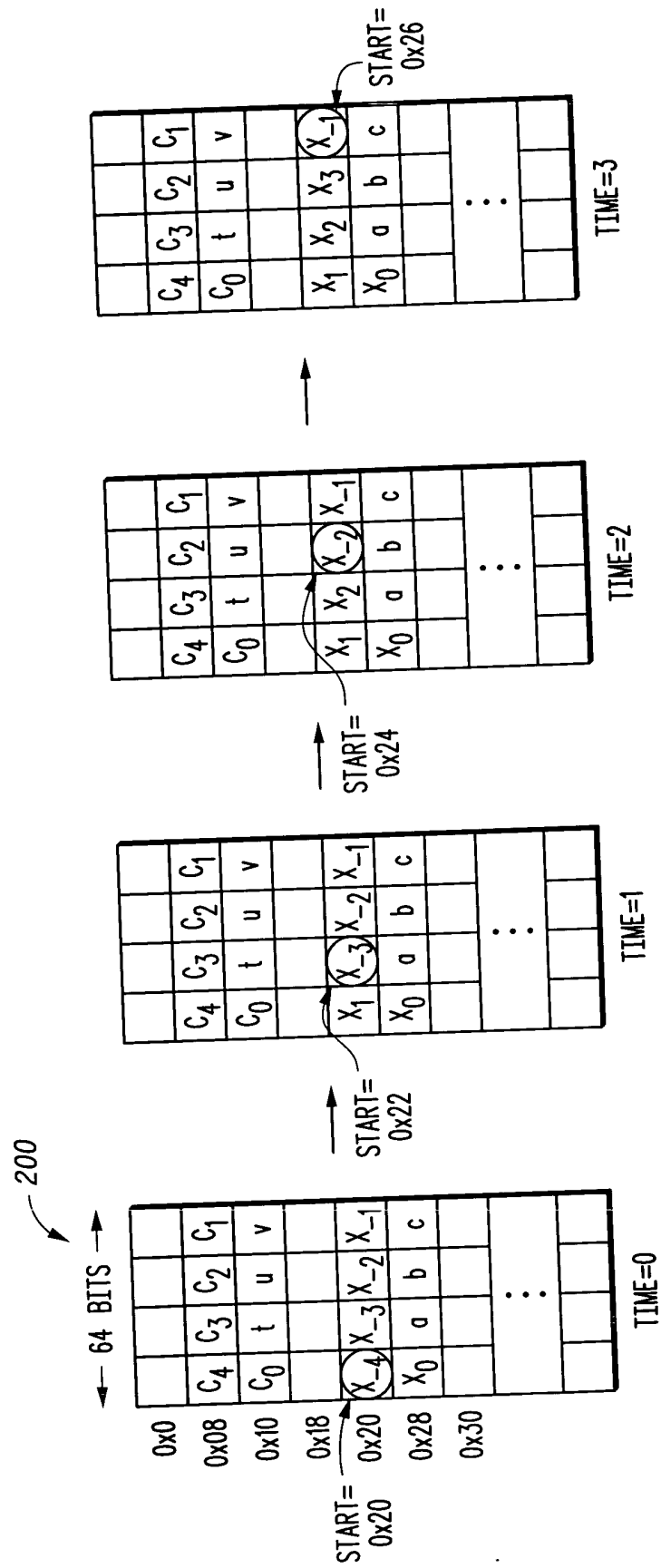
**FIG. 15**



**FIG. 16**



**FIG. 17**



**FIG. 18**

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← 64 BITS →

0x08				R1
0x20				R2
⋮				
$C_4$	$C_3$	$C_2$	$C_1$	R6
$C_0$	0	0	$C_0$	R7
$X_{-4}$	$X_{-3}$	$X_{-2}$	$X_{-1}$	R8
$X_0$	0	0	0	R9
$C_4 \cdot X_{-4} + C_3 \cdot X_{-3} + C_2 \cdot X_{-2} + C_1 \cdot X_{-1}$				R10
$C_0 \cdot X_0 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0$				R11

**FIG. 19**

← 64 BITS →

0x22				R2
⋮				
$C_4$	$C_3$	$C_2$	$C_1$	R6
$C_0$	0	0	$C_0$	R7
$X_{-3}$	$X_{-2}$	$X_{-1}$	$X_0$	R8
$X_1$	0	0	0	R9
$C_4 \cdot X_{-3} + C_3 \cdot X_{-2} + C_2 \cdot X_{-1} + C_1 \cdot X_0$				R10
$C_0 \cdot X_1 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0$				R11

**FIG. 20**

← 64 BITS →

0x24				R2
⋮				
$C_4$	$C_3$	$C_2$	$C_1$	R6
$C_0$	0	0	$C_0$	R7
$X_{-2}$	$X_{-1}$	$X_0$	$X_1$	R8
$X_2$	0	0	0	R9
$C_4 \cdot X_{-2} + C_3 \cdot X_{-1} + C_2 \cdot X_0 + C_1 \cdot X_1$				R10
$C_0 \cdot X_2 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0$				R11

**FIG. 21**

← 64 BITS →

0x26				R2
⋮				
$C_4$	$C_3$	$C_2$	$C_1$	R6
$C_0$	0	0	$C_0$	R7
$X_{-1}$	$X_0$	$X_1$	$X_2$	R8
$X_3$	0	0	0	R9
$C_4 \cdot X_{-1} + C_3 \cdot X_0 + C_2 \cdot X_1 + C_1 \cdot X_2$				R10
$C_0 \cdot X_3 + 0 \cdot 0 + 0 \cdot 0 + 0 \cdot 0$				R11

**FIG. 22**



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← 64 BITS →

A	B	C	0	R1
K	N	Q	0	R2
				R3
			0x12	R4
			0x54	R5

**FIG. 23**

← 64 BITS →

D	E	F	0	R1
K	N	Q	0	R2
				R3
			0x12	R4
			0x54	R5
			⋮	
			$A \cdot K + B \cdot N + C \cdot Q$	R10
				R11
				R12

**FIG. 24**

← 64 BITS →

G	H	I	0	R1
K	N	Q	0	R2
				R3
			0x12	R4
			0x54	R5
			⋮	
			$A \cdot K + B \cdot N + C \cdot Q$	R10
			$D \cdot K + E \cdot N + F \cdot Q$	R11
				R12

**FIG. 25**

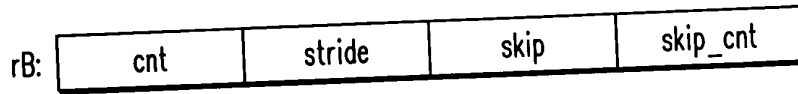
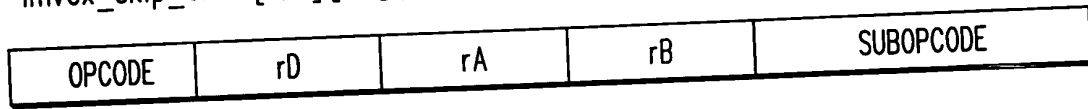
← 64 BITS →

G	H	I	0	R1
L	O	R	0	R2
				R3
			0x12	R4
			0x54	R5
			⋮	
			$A \cdot K + B \cdot N + C \cdot Q$	R10
			$D \cdot K + E \cdot N + F \cdot Q$	R11
			$G \cdot K + H \cdot N + I \cdot Q$	R12

**FIG. 26**

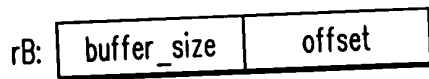
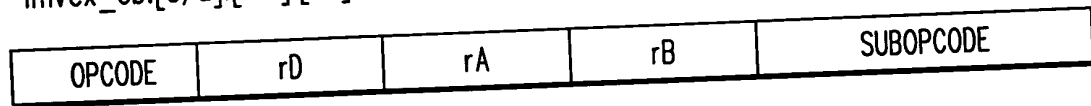
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lmvex\_skip\_once.[s/u].[ms].[ds] rD, rA, rB

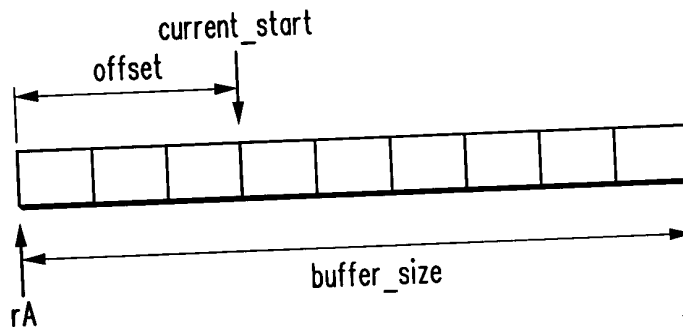


**FIG. 27**

lmvex\_cb.[s/u].[ms].[ds] rD, rA, rB

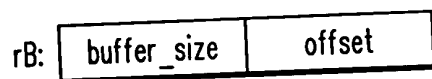
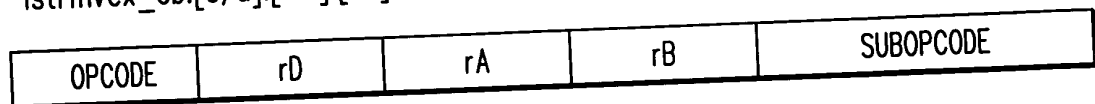


**FIG. 28**



**FIG. 29**

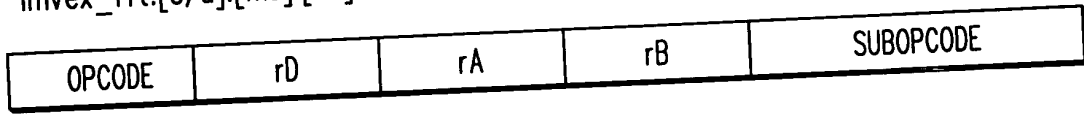
lstrmvex\_cb.[s/u].[ms].[ds] rD, rA, rB



**FIG. 30**

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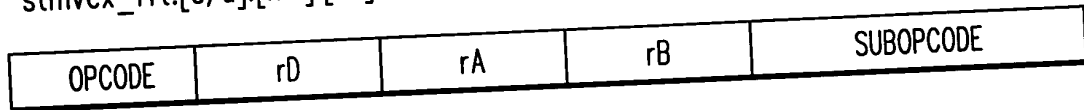
lmvex\_fft.[s/u].[ms].[ds] rD, rA, rB



rB: radix

*FIG. 31*

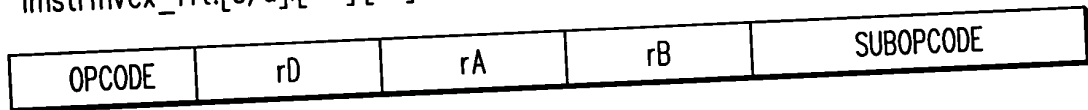
stmvex\_fft.[s/u].[ms].[ss] rS, rA, rB



rB: radix

*FIG. 32*

lmstrmvex\_fft.[s/u].[ms].[ds] rD, rA, rB



rB: radix

*FIG. 33*

	0x0				0xE				300
0x0									
0x10				X <sub>0</sub>	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	
0x20	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>						
0x30									
0x40			Y <sub>0</sub>	Y <sub>4</sub>	Y <sub>6</sub>	Y <sub>2</sub>	Y <sub>1</sub>	Y <sub>5</sub>	
0x50	Y <sub>3</sub>	Y <sub>7</sub>							
0x60									

FIG. 34

X <sub>0</sub>	X <sub>4</sub>	X <sub>6</sub>	X <sub>2</sub>	R1
X <sub>1</sub>	X <sub>5</sub>	X <sub>3</sub>	X <sub>7</sub>	R2
				R3
Y <sub>0</sub>	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	R4
Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>	R5

FIG. 35